AMENDMENTS TO THE CLAIMS

Please cancel Claims 3, 4, 15, 16, 27, and 28.

Please amend Claims 1, 2, 13, 14, and 25, as follows:

1. (Currently Amended) A method of securely invoking an access control function, the method comprising the steps of:

receiving a digital signature for the access control function;

generating a mapping of the access control function to the digital signature;

determining that the digital signature is mapped to the access control function based on the mapping when execution of the access control function is requested;

generating a mapping between access control events and access control functions;

detecting that an access control event has occurred;

determining that the access control event is mapped to the access control function;

retrieving an executable element if the access control event is mapped to the access control function;

generating a digital signature for [[a]] the retrieved executable element;

determining whether the retrieved executable element matches the access control function by comparing the digital signature of the retrieved executable element and the digital signature for the access control function; and

executing the retrieved executable element only when the retrieved executable element matches the access control function[[;]] .

~~wherein a particular class defines an implementation of the access control function; and~~

~~returning data to a caller of the executable element after executing the executable element.~~

2. (Currently Amended) The method of Claim 1,

wherein a particular class defines an implementation of the access control function;

wherein the step of receiving a digital signature includes the step of receiving a digital signature for the particular class; and

wherein the step of generating a mapping includes generating a mapping between the particular class and the digital signature.

3. (Canceled)

4. (Canceled)

5. (Previously Presented) The method of Claim 1, wherein the step of returning data further includes the executable element returning name-value pairs.

6. (Previously Presented) The method of Claim 1, wherein the step of returning data includes the executable element returning a hash table that contains the name-value pairs.

7. (Original) The method of Claim 1, wherein the method further includes the steps of:

generating a mapping of a plurality of access control functions to digital signatures, wherein the plurality of access control functions include the access control function, wherein one or more classes define an implementation for each of the plurality of access control functions; and

wherein each of the one or more classes belong to a superclass.

8. (Original) The method of Claim 7, further including the step of invoking a routine defined by a superclass that collects data to return to a caller of the particular class.

9. (Original) The method of Claim 8, wherein the step of executing the executable element includes invoking a routine defined for the superclass.

10. (Original) The method of Claim 1, wherein the step of retrieving an executable element includes retrieving byte code.

11. (Original) The method of Claim 10, wherein the step of retrieving byte code includes retrieving Java byte code.

12. (Original) The method of Claim 1, wherein the step of retrieving an executable element includes a first computer system retrieving byte code transmitted via a local area network from a second computer system.

13. (Currently Amended) A computer-readable medium carrying one or more sequences of one or more instructions for securely invoking an access control function, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

receiving a digital signature for the access control function;

generating a mapping of the access control function to the digital signature;

determining that the digital signature is mapped to the access control function based on the mapping when execution of the access control function is requested;

<u>generating a mapping between access control events and access control functions;</u>

<u>detecting that an access control event has occurred;</u>

determining that the access control event is mapped to the access control function;

retrieving an executable element if the access control event is mapped to the access control function;

generating a digital signature for [[a]] the retrieved executable element;

determining whether the retrieved executable element matches the access control function by comparing the digital signature of the retrieved executable element and the digital signature for the access control function; and

executing the retrieved executable element only when the retrieved executable element matches the access control function~~; and~~ .

~~wherein a particular class defines an implementation of the access control function; and~~

~~returning data to a caller of the executable element after executing the executable element.~~

14. (Currently Amended) The computer-readable medium of Claim 13,

wherein a particular class defines an implementation of the access control function;

wherein the step of receiving a digital signature includes the step of receiving a digital signature for the particular class; and

wherein the step of generating a mapping includes generating a mapping between the particular class and the digital signature.

15. (Canceled)

16. (Canceled)

17. (Previously Presented) The computer-readable medium of Claim 13, wherein the step of returning data further includes sequences of instructions for performing the step of the executable element returning name-value pairs.

18. (Previously Presented) The computer-readable medium of Claim 13, wherein the step of returning data includes the executable element returning a hash table that contains the name-value pairs.

19. (Original) The computer-readable medium of Claim 13, wherein the computer-readable medium further includes sequences of instructions for performing the steps of:

generating a mapping of a plurality of access control functions to digital signatures, wherein the plurality of access control functions include the access control function, wherein one or more classes define an implementation for each of the plurality of access control functions; and

wherein each of the one or more classes belong to a superclass.

20. (Original) The computer-readable medium of Claim 19, further including sequences of instructions for performing the step of invoking a routine defined by a superclass that collects data to return to a caller of the particular class.

21. (Original) The computer-readable medium of Claim 20, wherein the step of executing the executable element includes invoking a routine defined for the superclass.

22. (Original) The computer-readable medium of Claim 13, wherein the step of retrieving an executable element includes retrieving byte code.

23. (Original) The computer-readable medium of Claim 22, wherein the step of retrieving byte code includes retrieving Java byte code.

24. (Original) The computer-readable medium of Claim 13, wherein the step of retrieving an executable element includes a first computer system retrieving byte code transmitted via a local area network from a second computer system.

25. (Currently Amended) An access control system, comprising:

a processor;

a memory coupled to the processor;

a first mapping that maps each of a set of access control functions to a digital signature of that access control function;

the processor configured to retrieve an executable element in response to a request to execute a first access control function;

the processor configured to generate a mapping between access control events and access control functions;

the processor configured to detect that an access control event has occurred;

the processor configured to determine that the access control event is mapped to the access control function;

the processor configured to retrieve an executable element if the access control event is mapped to the access control function;

the processor configured to generate a digital signature for [[a]] the retrieved executable element;

the processor configured to determine whether the retrieved executable element matches the first access control function by comparing the digital signature of the retrieved executable element and the digital signature for the first access control function; and

~~the processor configured to determine whether the executable element matches the first access control function based on the digital signature;~~

the processor configured to execute the retrieved executable element when the retrieved executable element matches the first access control function~~; and~~ .

~~wherein the set of access control functions are each implemented in a class; and~~

~~the processor configured to return data to a caller of the executable element after executing the executable element.~~

26. (Original) The access control system of Claim 25,

wherein the first mapping maps a class implementing one of the set of access control functions to a digital signature.

27. (Canceled)

28. (Canceled)

29. (Previously Presented) The access control system of Claim 25, wherein the executable element returns name-value pairs as data.

30. (Previously Presented) The access control system of Claim 25, wherein the executable element returns a hash table as data that contains the name-value pairs.

31. (Original) The access control system of Claim 25,

wherein the processor is configured to generate a mapping of a plurality of access control functions to digital signatures;

wherein the plurality of access control functions include the access control function, wherein one or more classes define an implementation for each of the plurality of access control functions; and

wherein each of the one or more classes belong to a superclass.

32. (Original) The access control system of Claim 31, further comprising said processor configured to invoke a routine defined by a superclass that collects data to return to a caller of the particular class.

33. (Original) The access control system of Claim 32, wherein said processor is configured to execute the executable element by invoking a routine defined for the superclass.

34. (Original) The access control system of Claim 33, wherein said executable element is byte code.

35. (Original) The access control system of Claim 34, wherein said byte code includes Java byte code.

36. (Original) The access control system of Claim 35, wherein said processor is configure to retrieve an executable element by retrieving byte code transmitted via a local area network.